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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,147	01/11/2002	Hisao Chikano	217692US3	5813

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EXAMINER

PHAM, HAI CHI

ART UNIT PAPER NUMBER

2861

DATE MAILED: 04/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

10/042,147

Applicant(s)

CHIKANO, HISAO

Examiner

Hai C Pham

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3,6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

2. Claims 1 and 8-10 are objected to because of the following informalities: \

Claim 1:

- Line 3, "image forming apparatus" should read --image bearing member--.

Claim 8:

- Line 2, "that flowed" should read --that flows--.

Claim 9:

- Line 2, "that flowed" should read --that flows--.

Claim 10:

- Line 3, "image forming apparatus" should read --image bearing member--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Application/Control Number: 10/042,147

Art Unit: 2861

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-6, 8-15, 17-18 are rejected under 35 U.S.C. 102(b) as being anticipated by lino et al. (U.S. 5,185,629).

With regard to claims 1 and 10, lino et al. discloses an image forming apparatus comprising a writing device (Fig. 1) configured to write and form an image on a surface of an image bearing member photoreceptor 11), a developer (14), an upper duct provided on and a lower duct provided beneath a housing of the writing device (lower section of the housing 10 enclosing the writing device formed around the photoreceptor 11) to form an outside-air flowing path (the upper duct being provided on the upper section of the housing 10 while the lower duct being either the cooling duct 24 (Fig. 5) or the ozone removing duct 31 (Fig. 2A)).

With regard to claims 2-6, 8-9, 11-15, 17-18, lino et al. further teaches:

- the respective upper and lower ducts having openings covered by respective upper and lower sections of the housing;
- the open upper side of the housing being covered by a scanner frame of an original document reading device (upper section of the housing 10 containing the exposure lamp for reading an original document through a platen glass 100), and wherein the upper duct is provided in the scanner frame (upper section of the housing 10 in Fig. 5);
- outside-air intaken by a single air intake fan (22) flows through each of the upper duct and the lower duct (col. 4, lines 15-24);

- a fan (22) being provided to an outside-air intake inlet and an air discharge outlet at least one of the upper and the lower duct (col. 4, lines 15-24);
- an outside-air that flows through at least one of the upper duct and the lower duct being used to cool components other than the writing device (the lower duct or cooling ducts 24 to cool the fixing rollers 17);
- the lower duct (31, Fig. 2) being used to remove ozone produced in the image forming apparatus.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iino et al. in view of Kubota (U.S. 5,510,827).

Iino et al. discloses all the basic limitations of the claimed invention except for the scanning optical components of the writing device being formed of a plastic.

However, it is well known in the printing art that the scanning lenses are generally made of a plastic material that allows easy formation of a special lens surface shape, is easy to manufacture, and is manufactured at low costs. Kubota et al, for example, discloses a laser beam printer including plastic imaging lens (29) as well as a cooling system arranged in the optical box.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the plastic scanning optical component as taught by Kubota et al. in the device of lino et al. The motivation for the combination would have been to provide a low cost scanning lens with a desired special surface shape.

Additional Prior Arts

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tsuchiya (U.S. 5,307,132) discloses an image forming apparatus including an air-discharging device for cooling the various components of the printing device.

Siegel (U.S. 5,424,806) discloses an air duct frame for heat, dust and ozone management being used in a printing device for environmental cleaning purpose.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai C Pham whose telephone number is (703) 308-1281. The examiner can normally be reached on T-F (8:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benjamin R. Fuller can be reached on (703) 308-0079. The fax phone numbers for the organization where this application or proceeding is assigned are (703)

Application/Control Number: 10/042,147

Art Unit: 2861

308-7722, (703) 308-7724, (703) 308-7382, (703) 305-3431, (703) 305-3432 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



HAI PHAM
PRIMARY EXAMINER

April 21, 2003